

REMARKS

Claim 13 has been amended. Support for the amendment to claim 13 may be found, at least at paragraph [0040] in the specification. No new matter has been added. Claims 14-18 have been canceled without disclaimer of the subject matter contained therein or prejudice to the Applicants' right to file any continuing applications directed thereto. Upon entry of this Amendment, claims 1-13 remain pending.

In the Office Action dated December 14, 2004, claim 13 was rejected under 35 U.S.C. § 102(e) as being anticipated by Kondo (U.S. Patent No. 6,710,857). Applicants respectfully traverse this rejection.

Amended claim 13 recites an article support to support a flat article to be placed in a beam path of radiation that includes, *inter alia*, a clamp that is provided with a plurality of zones located around a circumference of the article support to create a locally adjusted pressure so as to provide a local bending moment to locally bend the article. Kondo does not disclose or suggest this feature.

Kondo discloses a wafer holder (WH) that has a substantially square flat-plate base member (4) that is provided with a rim portion (2) and a large number of pins (1) that are arranged like a lattice of equilateral triangles. (Kondo at col. 6, lns. 35-44, FIG. 1A.) A series of intake and exhaust ports 6A, 6B, and 6C are arranged around the position of a center pin (3) and communicate with an outside intake and exhaust pipe (5) via a vent hole in the inside of the base member (4). (Kondo at col. 7, lns. 31-39, FIG. 1A.) The pipe (5) is connected to a vacuum pump (7), vacuum chamber (8a), and air supply equipment (9). (Kondo at col. 7, lns. 48-51, FIG. 1A.) The vacuum pump (7) is used to provide a predetermined vacuum chucking force to the wafer being supported by the wafer holder (WH). (Kondo at col. 7, ln. 66 – col. 8, ln. 4.) Nowhere does Kondo disclose or suggest a clamp that is provided with a plurality of zones *located around a circumference* of the article support to create a locally adjusted pressure so as to provide a local bending moment to locally bend the article, as recited by claim 13. Accordingly, Applicants respectfully submit that claim 13 is patentable over Kondo, and respectfully request that the rejection be withdrawn.

In the Office Action, claims 1-2, and 5-13 were rejected under 35 U.S.C. § 102(e) as being anticipated by Taniguchi et al. (U.S. Patent Application Publication No. 2004/0080734). Applicants respectfully traverse this rejection.

Independent claim 1 recites a lithographic projection apparatus that includes, *inter alia*, a clamp that is provided with a plurality of zones located around a circumference of an article support to create a locally adjusted pressure so as to provide a local bending moment to locally bend an article being supported by the article support. Taniguchi et al. does not disclose or suggest this feature.

Taniguchi et al. discloses a stage with a square steel base (51) and rectangular adsorbing plates (52) that extend across the base (51). (Taniguchi et al. at [0169]-[0170], FIG. 16.) The base (51) includes a plurality of grooves (53) that receive piezoelectric elements (54). (Taniguchi et al. at [0173], FIG. 16.) The piezoelectric elements (54) support the adsorbing plates (52). (Taniguchi et al. at [0173], FIG. 16.) A plurality of vacuum adsorbing apertures (55) are provided along each of the adsorbing plates (52) and are connected to a vacuum pump (56) to independently control the adsorption and separation for each of the rectangular adsorbing plates (52). (Taniguchi et al. at [0175], FIG. 16.) Thus, Taniguchi et al. does not disclose or suggest a lithographic projection apparatus that includes a clamp that is provided with a plurality of zones *located around a circumference* of an article support to create a locally adjusted pressure so as to provide a local bending moment to locally bend an article being supported by the article support. Accordingly, Applicants respectfully submit that claim 1, and claims 2 and 5-12 that depend therefrom are patentable over Taniguchi et al., and respectfully request that the rejection be withdrawn.

Claim 13 was discussed above. Taniguchi et al. does not disclose or suggest an article support that includes a clamp that is provided with a plurality of zones *located around a circumference* of the article support to create a locally adjusted pressure so as to provide a local bending moment to locally bend the article. Accordingly, Applicants respectfully submit that claim 13 is patentable over Taniguchi et al., and request that the rejection be withdrawn.

In the Office Action, claims 1-2, 5-11, and 13 were rejected under 35 U.S.C. §102(b) as being anticipated by McKinley et al. (U.S. Patent No. 5,724,121). Applicants respectfully traverse this rejection.

Claim 1 is discussed above. McKinley et al. does not disclose or suggest a lithographic projection apparatus that includes a clamp that is provided with a plurality of zones located around a circumference of an article support to create a locally adjusted pressure so as to provide a local bending moment to locally bend an article being supported by the article support.

McKinley et al. discloses a deformable chuck (502) that includes a base (520) on which a plurality of controllable actuators (524) are mounted. (McKinley et al. at col. 18, lns. 49-53, FIG. 11.) The chuck (502) also includes a deformable mounting plate (526) on which the substrate (28) to be patterned is mounted. (McKinley et al. at col. 19, lns. 1-3, FIG. 11.) A plurality of walls (521) are positioned within the mounting plate (526) to create a plurality of regions (519). (McKinley et al. at col. 19, lns. 14-16, FIG. 11.) The walls (521) can be arranged to position the regions (519) in a predetermined pattern, such as concentric annular regions (519). (McKinley et al. at col. 19, lns. 16-19, FIG. 11.) McKinley et al. does not disclose or suggest a lithographic projection apparatus that includes a clamp that is provided with a plurality of zones located around a circumference of an article support to create a locally adjusted pressure so as to provide a local bending moment to locally bend an article being supported by the article support. The regions (519) disclosed by McKinley et al. are not located around a circumference of the article support, as required by claim 1. Accordingly, Applicants respectfully submit that claim 1, and claims 2 and 5-11 that depend therefrom are patentable over McKinley et al., and respectfully request that the rejection be withdrawn.

Claim 13 is discussed above. Nowhere does McKinley et al. disclose or suggest an article support that includes a clamp that is provided with a plurality of zones *located around a circumference* of the article support to create a locally adjusted pressure so as to provide a local bending moment to locally bend the article. Accordingly, Applicants respectfully submit that claim 13 is patentable over McKinley et al., and request that the rejection be withdrawn.

In the Office Action, claims 3-4 and 12 were rejected under 35 U.S.C. §103(a) as being unpatentable either over Taniguchi et al. or McKinley et al. Applicants respectfully traverse this rejection.

Claims 3-4 and 12 depend from claim 1. As explained above, claim 1 is patentable over Taniguchi et al. and McKinley et al. because neither of those references discloses or suggests a lithographic projection apparatus that includes a clamp that is provided with a plurality of zones located around a circumference of an article support to create a locally adjusted pressure so as to provide a local bending moment to locally bend an article being supported by the article support. Because claim 1 is patentable over Taniguchi et al. and McKinley et al., claims 3-4 and 12 are also patentable over Taniguchi et al. and McKinley et al. Accordingly, Applicants respectfully request that the rejection be withdrawn.

OTTENS ET AL. -- 10/736,988
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All rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited. If any point remains at issue which the Examiner feels may best be resolved through a personal or telephone interview, please contact the undersigned at the telephone number below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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